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BEAUTY, COGNITION, AND GOODNESS

PHILOSOPHERS and artists have taken, throughout the history of thought, one of two attitudes toward beauty. They saw it either as a deep, metaphysical principle made magically manifest or as an ordinary psychologic or material datum, curious in its bearing on human interests. Beauty was, in these two views, assimilated, on the one hand, to the high, the noble, the divine, impersonal, and selfless; on the other, to the pleasures of the lower interests of life, to the satisfaction of appetites. To Plato, Plotinus, Kant, Schelling, Hegel, Schopenhauer, Ruskin, Goethe, among many others, beauty was the supernal reality made manifest; escape from evil, the self-expression of the infinite, and what not that is transcendental and blissful. For Baumgarten, for the English empiricists from Hobbes to Burke, for psychologizing investigators like Lipps and Santayana, for biologizing ones like Darwin and Guyau or Spencer, beauty was identical with some state of mind or the function of some biological condition or trait. None allowed it any independent status or intrinsic, observable character. It was always taken metaphysically or positivistically; attributed now to the object, now to the mind, and the diversity of opinion concerning its nature is so great as to render doubtful any definition of it, save in so far as that definition contains elements common to all the others. Such elements should, on the one hand, reveal either the constant conditions or occasions of beauty and perhaps its intrinsic character; on the other, they should indicate its status with respect to man and nature.

Where is beauty to be sought? In the definitions themselves? Hardly, since these look back to a specific situation having concrete and multifold characters from which the definitions as such abstract. Actual beauty is to be found empirically, like actual apples or chairs or tables. It can not be deduced; it must be sought in typical "beauty-situations." But since, according to the definitions, these are cases of either objective or psychological existence, we must examine both things of beauty and beauty-experiencing minds.

Suppose, then, that we study any object to which the adjective "beautiful" is applied—any statue, any picture, any poem, any melody. If it contains beauty as a quality or attribute not identical with any one of its other qualities, or so identical, or identical with the whole collection of them, this beauty must be capable of being analyzed out, like color, texture, shape, size, or expression. Now we can abstract from any object of beauty, one by one, its qualities—its order, its structure, its tone or color, its contour or pitch, its imagery or expressiveness. We can exhibit these elements. We can say of the Lady in the Sistine Chapel: "See, here is the rose of the Madonna's cheek, here the pink and white of her flesh, the blue of her eyes, the oval of her face, the round of her arm, the flowing line of her robe, the perfect curve of her aureole." But can we so abstract and exhibit her beauty? Where in the picture shall we find it, whence take it, as we have found and taken these other qualities, from eyes and robe and aureole? This quality we can not discover: like Berkeley's matter, it disappears with enumerations of qualities that, taken together, are supposed to possess it. Empirically, at least, beauty does not appear to be an additional quality, added to color and line and expression; it is not an underlying quality where color and line and expression inhere. Shall we say then, as Berkeley said of matter, that beauty *is* the qualities that are supposed to possess it, that it consists of the union of these so various elements? Some philosophers do, in fact, hold some such proposition to be true. For them beauty consists in wholeness, and a beautiful thing, they call "an organic whole, self-completing and self-complete." Others speak of the beautiful in an object as the harmonious union of its parts, identifying beauty with certain specific relations that such parts bear to one another. To all persons, who so think of beauty, it involves some kind of complexity: a simple thing can not be beautiful. Yet are there not many things we find beautiful that are genuinely simple—a pure color, a graceful line, a single tone? These are units of which complex esthetic objects are made, yet they are not unbeautiful in themselves. Reduce or increase their quantity or duration, they are still beautiful. We may not say, therefore, that beauty is identical with wholeness as such, nor yet that it is identical with a special kind of wholeness. Very often two objects made of esthetically the same material, in an identical fashion—a picture and its copy, for example—differ in no respect save in this unique matter of beauty; one of them possessing it supremely, the other not at all. Still more frequently an object which is found to be beautiful on one day is judged unbeautiful on the next; while an object which has never been considered to possess beauty is suddenly found to be endowed therewith in high degree. And this last

event occurs to the most commonplace of objects—a city street, a familiar voice, one's wife, one's pupils, even one's last year's contribution to the JOURNAL OF PHILOSOPHY. Yet when you analyze this transfigured thing, you find in it nothing new which is the cause of beauty, nor yet beauty itself. And not only is one and the same object inconstant with respect to beauty at different times; if beauty is a quality of it, it both has it and does not have it at the same time. For every disagreement about the beauty of an object means that the beauty is there and not there at an identical instant. This could not be if beauty were a quality, whether a particular one, like red or shape, or the unity and wholeness, the combination of many such particular qualities. Experience, when taken thus radically, refutes both these conceptions. Neither beauty as a quality nor its identity with wholeness is revealed in it. Complexes or simples, they may be the occasion of beauty, or perhaps the result of beauty, but beauty's self they are not. But if beauty is not the wholeness of an object nor any special part or quality of an object, then it does not reside *in* the object. It is to be sought for elsewhere.

That "elsewhere," estheticians, following the normal bent of the philosophic mind, make the spirit. For a long time great schools of philosophy have persisted as the exponents of a fundamental proposition—the proposition that the mind contributes a great deal to the nature of its object; many, indeed, believing that knowing is creative. Psychology has given this belief a color of truth. It has been shown that what we see or hear or feel varies with our previous experience, the state of our bodies, our general mental tone. This fact, it is claimed, is most particularly evident in the region of our life known as values, and psychologists, accordingly, even those who do not believe the general assumption that the mind alters or creates things by knowing them, have none the less found it convenient to identify beauty with certain psychological conditions. According to these scholars the mind endows an object with beauty when it assumes toward that object an "esthetic attitude." By "esthetic attitude" they mean certain changes in mind and body. These changes they study, analyze into components, define with respect to their bearing on each other, and then designate one or all of them with the word "beauty." So, beauty consists for some in the fusion into identity of certain mental states; for others it consists in the titillation of two feelings, one, that the object is real; the second, that the object is unreal; others, again, find beauty to be a balanced system of motor responses, or a fusion of mind and object, causing a "loss of personality"; while others still identify beauty with the emotional imitation of the object, by *empathy* or *einfühlung,* or with the feeling of detachment from pain and the stress of the daily life—the "libera

tion'' of the mind as in play, or with the attribution of pleasure to the object, rather than to the mind, and so on. Against such identifications, and there are many more, the same difficulties may be urged as against the identification of beauty with wholeness or with any simple quality of an object. Are such psychological or physical states actually beauty? Do we discover them to be beauty as the chemist discovers oxygen and hydrogen to be water? I doubt whether even the most radical of the psychologizing esthetic ians would venture to assert that they can exhibit a psychophysical compound, beauty, just as they can exhibit any other psychophysical object—the sensation *red,* an image, the process of attention, or of association. Here again, as with respect to the object, it is mere confusion to identify beauty with what precedes or succeeds it or is simultaneous with it. *Empathy,* ''favorable stimulation and repose,'' ''objectified pleasure,'' may be occasions or results of beauty, its concomitants, perhaps. They are not beauty itself, nor can they, empirically, be made into beauty. They often appear where it does not, and it, where they do not. If, therefore, beauty lies in the mind of him who sees, its manner of existence must be vastly different from ordinary ''psychological existence.'' Nor can it have even transcendental existence like the Kantian categories, since, if Kant is right, time and space and the categories are always with us, while beauty is not so with us. Is, then, its existence a Berkeleyan thing, destroyed when we cease to think of it, appearing and disappearing as we choose? Or is it something free and independent, working its will with us when it can even as we with it when we can? What is its relation to the beautiful object and what to the mind?

The first thing that strikes the investigator who is trying to answer this question is the fact that the mind, in genuine esthetic experience, in which beauty appears, is *not* experiencing a thing called beauty; it is experiencing an object to which it afterwards attributes beauty. Nor yet is this object affecting a psychological quality or trait, designated as beauty; it is affecting an ordinary mind. Hence, the mind which seeks to experience beauty as such must take the esthetic experience as a whole; must make its subject mind, beauty, and object together, and must analyze their mutual involutions. But to do this presupposes a conception of the nature of mind and its relation to its objects, and such a conception must needs be defined before the analysis can proceed.

II

Common sense speaks of ''reading the mind,'' ''seeing what is in the mind,'' and so on. Empirically taken, mind, when spoken of in this manner, means a special way of behavior with respect to

objects, a way of taking them together. It involves a body, objects, and this distinctive togetherness. When a man "knows his own mind" or "makes up his mind" or "changes" it, one object or one program of behavior is included, another rejected. One thing is clung to, asserted, another abandoned. To be able "to read another like a book" is to distinguish the contents of the other's mind and his attitude toward them which alone makes them uniquely contents of *his* mind, their especial and concrete togetherness. It is, in a word, to perceive the direction and bearing of his interests.

Now what is interest? Taken concretely it is an action of a complex called a body upon something not itself, in such wise that this action and its object continue to increase and to expand prosperously. To say that John Jones is interested in music is to say that Jones so acts as to increase, use, and control those objects in his environment that are denoted by the word music—the objects, their associations, and implications. He goes to concerts, to operas, he makes himself a member of musical clubs, he plays, he sings, he composes, or buys scores. We define all human characters by their dominating interests—the miser, the boaster, the gambler, the philosopher—each of these words designates behavior tending to preserve or increase a certain type of existence. Now behavior of this kind is nothing more nor less than thinking. For thinking is only the prosecution of interests—the preservation of what is propitious and the elimination of what is evil—from the destruction of an enemy in the flesh, to a contradiction in logic. It requires a *body*, an *object* thought, and the *way* of thinking. And mind is what is left when the body is abstracted. In any concrete instance, hence, mind is a system of objects of which a living body, its operations, its desirings —*i. e.*, the motor and affectional life—are central and the objects marginal.

If this be the case, minds are neither simple nor stable. They may be and are "changed," "made up," "confused," "cleared," etc. One body, in the course of its lifetime, may have many minds, only partially united. The *unity* of a mind is coincident with its consistent pursuit of *one* interest (we then call it narrow) or with the cooperation and harmony of many (when we call it liberal). Frequently two or more minds struggle for the possession of one body; that is, the body may be divided between two objects, each equally demanding response. The most typical instance of such a division is that in which you can not determine between two conflicting ways of behavior, where you are "of two minds" with respect to an object or an end. The most complex instances are those of dual or multiple personality, in which the body has ordered so great a collection of objects and systematized a sufficiently large number of interests

in such typically distinct ways as to have set up for itself different and opposed "minds." On the other hand, two or fifty or a hundred bodies may be, so far as is compatible with their fundamental numerical diversity, "of the same mind." In fact, concerning the elementary things of life, the business of feeding and loving, the sun, the sky, the primordial conditions of labor, the majority of men *are* of one mind: it is this unity of mind that we call their "common sense."

Mind so taken, it is clear, does not create the objects it knows; it selects them. It does not "picture" or represent what it knows, it apprehends its objects directly. Not only is it, moreover, uncreative of things; it is uncreative of those things which are called purely mental—memories, imaginations, ideas. Its world, instead of being dual, is single and continuous. Whatever it thinks has an independent status and definable character—a centaur, the number 4, Cæsar's death, to-morrow's dinner. Whatever the *source* of these objects, once they are *cognitively* found, they are found as real: they are capable of being subjects of conversation and of battle. They may be envisaged by many people without being thereby changed in the least, or they may be changed and their changes would be accountable in unambiguous terms of bodily or otherwise entitative action upon them. A world of such objects in which all things have each a genuine status has been called by William James a "world of pure experience," and this way of viewing it he has called "radical empiricism" and "logical realism." Its content is an infinitude of entities, some "existent," some "non-existent," but really present in knowledge, partly or altogether, whenever thought or responded to. This infinitude must not, however, be taken as inert, nor as possessing in itself the orderly character of knowledge. It is a flux, a turmoil of confusion and disorder, containing pure chances, and with all its fulness, breeding infinitely more things. What order it contains is not necessary, but accidental —an acquired habit of things: what things there are are not necessary but accidental—spontaneous appearances that have succeeded in establishing their right to a place from among all the infinitude that have failed and been irredeemably lost. The cosmic order is a matter of cosmic adaptation: it is the salvage out of the universal chaos, neither good nor bad, but one out of an infinitude of possible orders, any of which might be much superior to this one, and any of which might in time or immediately displace it.

I have just made use of the words "superior," "good," and "bad." That use was premature. Such terms, terms of valuation, introduce into the order of nature a new and extraneous order, itself as much an incident in the cosmos as is the cosmos in the universe.

For us, however, it is a reordering of that universe, the establishment therein of a true center of reference, an unutterably different scale of being. This center, as we have seen, is that arrangement of entities we call the human organism. Like a magnet set within a heap of iron filings, it establishes within its environment a new and ulterior order; it endows the environmental contents with an additional quality and another status, making them relevant chiefly to *its* specific capacity and arranging them along *its* line of force. It does not alter their constitution, but it violates their inertia and proper bias, refracting these with reference to the needs of its own nature. In the universal jumble simple things may lie side by side with complex things, one may spring from the other, the other from the one. For the mind, simple things are first; complexes are built out of them, the universe is reconstituted, willy-nilly, in an ascending hierarchy of complexity, from logic, through mathematics, physics, chemistry, and biology, to ethics. Dominated by its interests, regarding the residual world only with reference to its bearing on these, the organism manipulates and uses what it apprehends directly, until its complexity is utterly reduced or its force consumed. This activity is knowing—response to objects as constituents or relevancies of interests.

Now, actions, responses, uses are either *relations* or depend upon them, and relations may be not only efficacious and alterative, but also external and impotent, in no sense definitive. They need not constitute anything on which they operate. They appear and they disappear, but they always bind two or more things together in a specific identifiable way. Thus, I stand on the floor, and "onness" is a relation between me and the floor. But I should not be unmade by not being on the floor, nor the floor made by my being on it. Onness is an external relation and defines neither me nor the floor. On the other hand, certain relations, which bind complex things together, *do* define them, as a man's cognitive relation to things defines man, the *knowing* animal. By that act which constitutes him man, he is most adequately distinguished from other things. These, again, are identified as heavy, sweet, red, alive, big, small, but only under very special conditions are they identified as *known*, and only in abnormal cases defined as such. To them the immediacy of knowledge is an external relation which connects them with many knowers, and it is a relation which they lose and assume without suffering directly the least change in their constitution and character. Indeed, we do not claim to know things certainly or immediately until we are convinced that they have revealed to us every possible change they themselves *independently* undergo. Their self-revelation is classified sometimes according to the organs which respond to

them, sometimes according to their complexity, sometimes according to both.

So, when the body responds to an object by means of its sense-organs, the object is called a perception. It is generally a "thick" object, supposed to be made up of many simpler elements. It gets itself taken hold of by the appropriate reflex arc directly, much as a pair of tongs directly spans or grasps a piece of coal. Thus, the sounds you hear and the words you see are spanned immediately by your auditory and visual reflex arcs, indirectly, by your whole nervous system, and you are said to perceive *what* I say or *what* impresses the eyes. Now such perceptions are very complex: they are composed of a great variety of tones or shapes and colors and their relations, and they also carry meanings and stand for things not themselves. If you span a single element of this complex, you are said to have a sensation or an idea or a conception. Psychologists, to say nothing of philosophers like Kant, have made much of the difference between the two, but no genuine difference seems discoverable. The idea of red, *e. g.*, whether it be "motor," or "kinesthetic" or "sensory" or "verbal" or "imageless," is not distinguishable as to qualitative content from the sensation of red; nor the idea of triangularity from the sensation of triangularity. In both cases you have before you less than is before you in perception, but what you have before you is none the less of the same *kind* as content of perception.

Nor can the distinction between idea and sensation based on the *mode* of presentation hold. For even if sensations are presented by the senses and ideas by means of central processes, each is at the moment spanned by some reflex arc, and who shall say that the senses are not part of it? If an entity is to be apprehended at all, it must be apprehended by one or more organs, and its nature is not different, whether the terminal act is arrived at in a roundabout way, through the intervention of various neural processes, or spontaneously, by the response of the appropriate reflex arc to its stimulus. In either case the given character of this stimulus is directly grasped, and this is so in the apprehension of even such putatively psychical objects as memory and imagination. A remembered thing has to be sought and found like a thing perceived, and its difference from perception is rather in certain additive or subtractive qualities than intrinsic content. It is essentially no more a psychic or hidden thing than is a perception. If attainable at all, it is as open to-day, as shareable by many people, as potent in requiring our adjustment to it.

This holds, I believe, also of imaginational beings. These are taken to be, like dreams, peculiarly private and hidden; their *esse*,

more even than that of memory, is described as *percipi.* But if you study your imaginative activities, if you are lost in dream or revery, you observe that they do not come at your bidding, that they must, like ideas and memories and sensations and perceptions, be sought out; their character and integrity must be acknowledged as these impose themselves upon you. You observe that they require you to adapt yourself to them even as do the more permanent things, making you happy or afraid, angry or sorrowful, confiding or watchful, just like the residual, solid, daily life. The stuff of them is the stuff of that life, going a different way, appearing in new complexes, differing from it only in power to hold the places they preempt. Imaginations are not unreal; those entities we so designate are only unfit. They belong, perhaps, to these other orders, to the infinite residuum which has not succeeded in making a place for itself in our cosmos, and breaks in, for the moment, perhaps, by way of the order of value, and is again cast out, banished, by the stronger, more "valid" order. Imaginations, too, may be common objects of knowledge; it is only their weakness which makes them sink out of our sight, like a tiny cloud to which you call the attention of your friend and which vanishes even as you cry, "Look!"

Such, then, are these so-called "mental," private entities—quite real, quite recognizable, with varying facility open to the day and to the common view of all healthy eyes. But one group of realities does not seem sharable and common in the same sense. This group comprises our preferences, our valuations. The others are objects, the goals of attention, the definitive contents of interest, the intelligible ideals of our lives. Attitudes and actions, however, are acceptances and rejections of these others, are the relations we bear to them, and just as two bodies can not occupy the same space at the same time, so two persons can not hold a numerically identical relation to the same object at the same time, unless these persons are identical. In this fact lies the source of all our differences and disagreements. Our mere numerical diversity compels us to value things with reference to fundamentally separate interests, to orient, each of us a world, about a distinct center, the self. Such orienting is the relating of the environment to the vital purpose. It is valuation, the essence of knowing, and our primordial and ultimate relation to our world is a *value-relation.* As such it carries its own peculiar terms, and for us, at least, is constitutive of our nature as terms. It consists at its barest of the direct appreciation of the immediate bearing of an entity on our vital selfhood. It stands out most clearly in an elementary interest. Such an interest is constituted by three things —an organism, an environment, the value-relation that binds them. This last is usually called cognition or awareness. It is different

from all other possible relations of organism to environment in that it alone *values* the latter, connecting its terms more closely, as in attention, *i. e.,* becoming the object's attribute, *good;* or divorcing them, becoming the attribute, *bad.* *Good* and *bad,* thus, are converse modes of designating immediate cognition, which is the value-relation and the essential constituent of interest, a relation that can be named, but not defined, utterly simple, primary, and ultimate.

Now a mind involves countless reflex arcs, many objects, is composed of innumerable interests. Each of these, it is clear, may be separate and independent valuations of their content, positive or negative, good or bad. But reflex arcs do not act alone. They are "integrated" and act like mobs or armies, and when they so act their separate valuations also integrate, and though each preserves its identity of direction, it is penetrated through and through by all the others and constitutes with them a unity which is identical with a fresh and quite diverse valuation. Such would be the complex and more massive feelings, pleasures and pains, anger, fear, affection, respect, admiration, love, sympathy. These are valuating complexes composed of simpler valuations which fuse into one as the separate tones of a melody fuse into the melody. They are appraisements of the environment and as such can themselves be appraised—though only with the greatest difficulty. For when you are possessed by any emotion you can not yourself examine it, and when your friend or your doctor studies such an actual attitude and its object or physiological condition or connected incident, he finds himself speedily assuming the attitude he is observing. Nothing is so fluent and infectious; anger begets anger; love, love; any relation tends to reproduce itself. It is because of this that a "social mind" is possible or that a stable common sense can arise.

How different when the object apprehended is a thing! Two persons may have opposed attitudes toward the same thing or a qualitatively identical attitude toward different things. For instance, you observe the *red* of the sunset; your observing is identical with finding it pleasant; you approach it, you open your senses wide to absorb it, you aim at more and more of it—in a word, it becomes the content of your interest. Your neighbor, however, apprehends it negatively, turns from it, seeks to upset the cognitive equilibrium, to free himself of his relation to *red,* to oust *red* from his world. Then, according to these direct and immediate valuations of that color, its place in your common world will be determined, and in order to get rid of it or to save it, you may aim even to get rid of each other. So, while your object is identical, your attitudes toward it are different and opposed and are, mayhap, never to agree. For even if you should both apprehend *red* positively, even if it should

become your common interest, it would be bound to you none the less by two numerically diverse relations; and while you might unite to defend it against a common foe, you might yet quarrel for its possession. Rivals in love do so frequently. They enhance and glorify the same woman, make common cause against her enemies, and are themselves bitter foes. So, even identical instances of the same relation, when directed, not upon their common terminal, but upon each other, are necessarily opposed in so far as they are numerically different; and the whole of our civilized world is definable by the cooperation, antipathy, and fusion of objects in the whirl of value-relations.

III

Mind, if the foregoing analysis is correct, is a system of objects related by a highly complex arrangement of value-relations to another complex, called the body. Anything outside this system, more or less durable, requiring a new adjustment, a reenvisagement or rearrangement of mind, would be an "object," whatever its character, quality, or status. When, now, is such an object "beautiful," and what happens to mind when the object it encounters is called beautiful?

Let us consider first how this encounter ensues. That continuous stream of active feeling we call life is nothing so much as a stream. Its mass is flux; in it moment passes into moment in terms of use. No point of it is sufficient for itself; it must borrow some of its reality from its predecessors and successors, it must surrender some of its proper integrity to the force of their withdrawing and of their coming on. Events affect us in their uses, not their natures, since they bear on interests, and should we pause for that nature, hence, the world becomes empty and we die. But now into the movement of multifold rates and infinite rhythms there bursts a thing with power to resist it. The attention, customarily shifting from this to that, pauses, the soul is turned from her headlong line of march to move upon this thing. The new value-relation brought to birth in that moment of pregnant attention feeds upon its occasion. From point to point it flows, holding each within the field of its unbroken act until it spans the utter fullness of the whole thing. One by one, the mind empties its storehouse of its appropriate treasures; these leap to the thing, making a constellation about it; the limbs of the body adjust themselves, so the rhythm of the breath, the pulse of the blood. A new onward movement of vitality has begun, enduring intensely, enduring profoundly, in felt-pulses of self-enhancing life. There is flux, but it is the flux of a growing fullness; a flux of power, but the power of poise, self-sufficient, absolute. It does not, as the flux of routine or of individual adventure, flow

unevenly, in eddies and whirls, from evil to good and back again; it does not flow instrumentally, consuming one object in another, passing from thing to thing, holding each for its use and abandoning each for its lost function. Rather do things grow more intensely themselves, more distinct, and yet more at one. The flow here of instrument into end is the flow and enduring of an identical thing. The interest grows by what it feeds on, and it feeds upon itself.

Such is the esthetic experience. Where, in it, does beauty appear? In the mind, as we have learned to know mind? Certainly not. To that the very object is *external,* an occasion for reorganization and readjustment, set over against it, a new datum to be encountered and controlled. In the object then? We have seen that beauty can not be *in* the object. Rather is it what alone remains, an independent thing, a relation *between* this mind and this object, binding them together and holding them bound. As such, it is inevitably a variable. It will not always span the same terms, nor even one of a pair, more than once, nor need it bind two minds to the same object. Positive, since it links rather than separates, elusive, concretely perceptual, beauty's nature, like the nature of all values, is its particularity and its appearance as truly active only in concrete situations. The very life of interest, it can not be "disinterested"; the very occasion of concreteness, it can not be "universal." It may link the mind to any environmental content, from a mathematical abstraction to a perceptual blotch. It is the only predicate in the judgment of beauty, whether the surgeon's of an operation, the carpenter's of his job, the sculptor's of his statue, the philosopher's of his system. But just because this is so it belongs to particular situations only, and the radical diversity of taste and judgment attests this concreteness. And it is only the failure to observe it where it occurs that makes people cling to its "disinterestedness." Such people miss the fact that the disinterestedness of the "esthetic" experience is like the disinterestedness of him who wants nothing because he already possesses everything. In morals, "disinterestedness" is instrumental. It is not so much a loss of self—far from it—as a gain in the sense of the excellence of other selves. It consists in subjecting "self" to the service of alien ends; in becoming an instrument, a means, without finding in that state any too great private joy. In it, nothing is so keen as the sense of personality. In the "esthetic" experience the sense of personalty is also keen. But it is the keenness of completed selfhood, of utter private joy, not of public use. Far from being unselfish and disinterested, the esthetic experience is absolute absorption in interest, absolute selfishness. For of course what is already completely possessed is not desired; and the mind in the grasp of beauty is in possession of its object so completely as to

shut out, for the nonce, the righteous demand of other interests and the cry of other needs for satisfaction. Yet unselfishness is not the exclusion of other needs and interest, it is their prosecution and fulfilment. Unselfishness is not the repose of one's own perfect adaptation to the environment; it is the unrest which compasses that adaptation for others. In the experience where beauty is the relation between you and your environment, it is, however, you yourself who are so adapted, and, being adapted, lifted up and out of the horde of conflicting interests. Your world is that object to which you are bound, and you are become isolated, alone, and supremely happy in that loneliness. Here is the only genuine solipsism, in which the stuff of reality assumes the status of mentality and things and thoughts are one. It is of the essential nature of beauty that your neighbor can have no part in your experience of its object, and that your experience of it can have no part as such in any other concern whatever in the enterprise of life.

Private, concrete, elusive, in itself neither mental nor amental, beauty is the optimal mode of that positive, intrinsic value-relation which binds the mind to its object in such wise that the two are completely and harmoniously adapted to each other in the very act of apprehension.

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IMITATION AND ANIMAL BEHAVIOR[1]

ADVANCE in the experimental analysis of behavior tends to make psychological concepts inadequate. In the realm of human psychology one needs only to instance such a term as memory. Aristotle summed up his total discussion of this subject in sixty words. With modern psychology came experimental analysis and to-day it requires twice sixty words to name the separate subjects that we investigate in the general field of memory. It would be an easy matter to show the same analytic tendency in perception and thought and will and in many non-psychological fields as well. It would be no less easy to point out numerous fields where such analysis has not had its way, and comparative psychology is one of these. It does not require any great insight in the reader of comparative psychology to see that many of the concepts used in the description of animal behavior are of the relatively unanalyzed sort. That we continue to talk in general about growth, development, intel-

[1] Read at the twentieth meeting of the American Psychological Association, Washington, D. C., December, 1911.

ligence, instinct, and imitation is evidence only of the fact that we have not yet pushed our experimental analysis to the end—not far enough to see what in reality are the elemental processes out of which the complex behavior of animals is built up. I insist on the phrase "experimental analysis," for it is only by the most extensive and painstaking development of detailed methods and the application of these methods in quantitative studies that we shall ever be able to understand animal behavior and to see its intimate relation to human behavior.

Take the case of imitation. There can be no doubt that the facts which this concept has been used to connote are more complex than any writer has yet set forth. It was no doubt a distinct advance in the discussion of the subject when scientists distinguished instinctive from voluntary imitation. This, however, is not a finally satisfactory analysis of the concept, and one reason why we have not made more progress in our study of the imitative behavior of animals is that the whole subject has been dominated by this crude differentiation. We have been looking for something that could be called instinctive imitation or voluntary imitation, and the facts have not fit this division. It would probably be more correct to say that psychologists have been looking for a sort of animal behavior that could be called voluntary imitation, and when they have found imitation that did not fulfill their idea of what constituted volition or inference they have gotten rid of such imitative behavior by calling it instinctive. The results of such study have not been encouraging, and experimentalists have tended to turn away from the study of imitation to fields that promised more definite results.

Before this diversion from the study of imitative behavior is complete it may be worth while to examine the tools with which we have been working. After all what can one mean by instinctive imitation? Whatever he means by imitation, it must be qualified by what he means by instinct. And what does instinct mean in current psychological discussion? If one is content with verbiage, he may, after perusing a whole library on the subject, as Wheeler admits doing, and exercising the most arbitrary selection, satisfy himself with a form of words. If he is not a word-monger and insists on knowing concretely what instinct means in the analyzed behavior of any single mammal, there is scarcely a line in the experimental literature, except Yerkes's and Bloomfield's[2] work on the cat, to illuminate him.

Let us try to be concrete. Speaking from the point of view of current thought, we would doubtless all agree that there is in the young of mammals an instinct to hunt out the breast and suck.

[2] "Do Kittens Instinctively Kill Mice," *Psych. Bull.*, 7: 253.

Now take the case of newly-born puppies and ask any single question about the makeup of the instinct; ask what it is that sets this instinct going, and you will not find a satisfactory answer anywhere in the literature. That it can be neither sight nor sound seems evident, because the eyes and ears of new-born puppies are closed for practically a fortnight after birth. Yet it is an open question whether they can not distinguish shades of light through the closed lids. Suppose you eliminate light and sound. What do you know about the puppy's sense of smell, its power of discrimination, its range in quality, and its range in intensity; the exceptional power of certain odors to excite reaction, the distance over which the odor is perceptible, the power of localization? To every one of these questions you must answer, "Absolutely nothing specific." What about the new-born puppy's sense of temperature, its sense of touch, its power of orientation, its possible kinesthetic sensations, its oral sense, its ability to taste? To every one of these interrogatories you must reply as before, "Nothing at all that fulfills the demands of experimental science."

If you seek to know which of several stimuli is prepotent over the others and to determine some order of importance for the several possible senses, you complicate the situation still more, and your confusion increases if you raise the question of the relative accuracy, serviceableness, and modifiability of the supposedly connate neural connections. It is hardly necessary to do more than state the situation to see that when we speak of the feeding instinct of young mammals we are merely cloaking our ignorance with a phrase. As an analytic concept it is valueless. Yet, if we have so little knowledge of the first experiences of the new-born animal, all its later history is clouded in even denser mists. There have been some studies on the sense of hearing and the sense of sight in dogs, but this work is not sufficiently accurate in its technique but that later experimentalists will insist on doing it all over again. There has been some work on dog intelligence, but not one of the reported investigations has even attempted to take the dog on his own ground, that of smell, and in no one of the investigations has the experimenter succeeded in eliminating himself from the experimental situation. These two shortcomings very decidedly limit the value of any investigation as yet made. When you couple with the evident fragmentariness of the experimental work and its certain lack of finality, the fact that the behavior of a dog at any level of development is a composite of inherited and learned reactions, you see how impossible it is in any given case of canine behavior to say what is instinct and what is intelligence. Gross facts are evident enough, but we ought at this

time to be beyond the stage where we base theories of learning on the simple observations of common sense.

Yet, in spite of our inability in concrete cases to separate instinct from intelligence, we are asked by current writers to regard a large proportion of dog behavior as due to instinctive imitation. I confess that I can not see how this sort of speculation is likely to illuminate the subject of animal behavior. To use the phrase to point out a large body of unanalyzed behavior is of course allowable, on condition that we take the next imperative step in the process, namely, to analyze that behavior into its elemental terms. But to imagine that we have said something final about a certain bit of behavior when we call it instinctive imitation is to mislead ourselves and to confuse the rightful course of experimental investigation.

With voluntary imitation the case is even worse. In human psychology we are at sea as to what constitute the elemental processes of inference and volition. In one place we read that the highest processes of mental life are nothing more than highly elaborated complexes of functioning images. In another place we are told that all this image-mongering is absurd, and that volition and inference can go on without any images whatever. On the one hand, we hear that we are nearing the end of sensationalism, and on the other, that the final triumph of sensationalistic psychology is even now in sight. Then we hear that there is no valid objective criterion of the presence of imagery—that we must always depend upon the subject's introspective report. In the light of such confusion, such a term as voluntary or inferential imitation loses its significance. Until human psychology can give us something more settled regarding the processes of volition we do well to use the term volition with parsimony in reference to the doings of animals.

Here then is our situation. We have the concept of imitation, which is an essentially descriptive term, setting forth certain features in the objectively observable behavior of animals. This concept is then divided into two parts, not, mark you, on the basis of objectively observed features of behavior, but on the basis of the supposed psychical accompaniments of such behavior. The terms which are used to denote these two divisions then become, not descriptive terms any longer, but explanatory terms, *i. e.*, they do not point out the behavior which actually takes place, but they attempt to indicate the non-observed processes antecedent to such behavior. These terms, however, when submitted to critical examination, turn out to have the most uncertain significance, for, imitation entirely apart, it must be admitted that there is no understanding about the relation of instinct and volition. What is more is that we shall not have any understanding of their relation so long as we confine our work to the logical

differentiation of terms. It may not be a very encouraging situation, but there is little likelihood that anybody will say anything significant and concrete about instinct and volition in mammalian behavior until we have a far larger accumulation of experimentally determined facts than we now have regarding any single mammal.

This situation is an unfortunate one for the study of imitative behavior, which is no longer approached on its own merits, but which has to struggle for recognition under the burden of supposedly explanatory adjectives, which in fact explain nothing, being themselves in need of description and explanation. We seem to face two alternatives: we may abandon the study of imitation and direct our studies to other fields. This we seem to be doing and to a degree the tendency is commendable. If the change is actuated by the feeling that imitative phenomena are so complex that we can not rightly interpret the results of experimental studies on imitation until we know more about the sensations and instincts, then, I agree. If, however, the tendency to drop imitation out of our categories is due to the belief that when we are talking about imitation we are resorting to "magical agencies" and that we must abandon it in favor of something that is more truly scientific, then I dissent, and insist that whatever may finally be our decision regarding imitative phenomena, we are as yet without sufficient evidence for any such speedy termination of this category. No person can face the whole group of experimentally determined facts of imitation in birds,[3] rats,[4] cats,[5] monkeys,[6] and apes[7] and come to any such conclusion, except he do it in behalf of a theory which he regards as more important than the facts.

The second alternative is to suspend judgment as to the particular level of psychical accomplishment denoted by the different kinds of imitative behavior, to free the concept of imitation from its unfortunate appendages and set ourselves to the task of accumulating the facts which we shall need before we can finally determine the importance of any particular kind of imitative behavior. The social relations of animals are of vast importance to their degree of mental attainment, and in these social relations there is a kind of behavior,

[3] James P. Porter, "Intelligence and Imitation in Birds," *Amer. Jour. Psych.*, 21.

[4] Charles S. Berry, "The Imitative Tendencies of White Rats," *Jour. Comp. Neur. and Psych.*, 16: 333.

[5] Charles S. Berry, "An Experimental Study of Imitation in Cats," *Jour. Comp. Neur. and Psych.*, 18: 1–25.

[6] M. E. Haggerty, "Imitation in Monkeys," *Jour. Comp. Neur. and Psych.*, 19: 337.

[7] M. E. Haggerty, "Preliminary Studies on Anthropoid Apes," *Psych. Bull.*, 7: 49.

which, to date, has not been better described than to call it imitation. At the present stage of our study of these relations, it is of secondary importance whether we are finally to explain them as "inherited reactions which are definitely serviceable on the occasion of their first appearance," or whether we must group them under entirely new rubrics. It is of first importance that we find out in terms of objectively describable behavior exactly what these relations are, and find it out in elemental terms.

I said a moment ago that no one can face the whole group of experimentally determined facts of imitation in animals and treat them lightly. I wish now to call attention to a single case of imitation which I reported to this association three years ago. Two monkeys were put into a cage three by four feet at the bottom, and six feet high. Seven strings hung from the top of this cage to within eight inches of the floor. Near the floor was a circular opening in the back of the cage, and one of the strings was attached on the outside of the cage to a mechanism which would, when the string was pulled, drop food down through a chute on the outside of the cage to a floor level with the opening in question. One of the two monkeys had learned to pull the string and get food at the opening. The other monkey, although he had been allowed ample opportunity to learn the trick unaided, had failed to do so. After being allowed to be with the first monkey when she pulled the string and got food, the second animal when left alone directed his attention to the food opening in a way that he had never done and repeatedly handled the three strings nearest the opening in a far more interested manner than he had ever done. In explanation of this change in behavior I am perfectly willing to invoke Thorndike's first law of behavior[8] that *"the same situation will, in the same animal, produce the same response—and that if the same situation produces on two occasions two different responses, the animal must have changed."* But then I would ask those who deny that this is imitative behavior to specify in what the change in the second monkey consists. To assume that there has been a change independent of the presence of the performing animal is mere gratuity. The evidence was too clear that the attention of the stupid monkey received a decided and sudden turn in the direction of the behavior of the other animal to doubt that that behavior was the determining factor. That the second monkey should go to the opening and look in may, of course, be explained by the fact that he had seen food there, but that he should suddenly become interested in the strings, the ends of which hung six inches above the opening and out of the animal's range of vision when he was looking into the opening, can receive no such explanation. There had been ample

[8] Edw. L. Thorndike, "Animal Intelligence," page 241.

opportunity for the second monkey to learn the trick unaided, but he had failed to do so; the strings had never brought satisfaction to him through his own activity. Yet now, although he did not use the strings to get food, he continued to handle them, to pound them against the side of the cage and against each other, and several times after acting in this way he looked directly into the food opening. Such continued interest can not be explained by the "law of effect." There is here a directing of attention that can not be due to the activities of the animal itself nor to any change in the mechanical situation.

This directing of attention which is so evident in this case was more marked in the next stage of the animal's learning. The trained animal was put back into the cage and allowed to get food in the presence of the learning monkey. As a result of this experience the attention of the second animal was narrowed down to the correct string. He no longer played with all three strings but centered his attention on the correct one of the three, and that without ever having used it in getting food or finding satisfaction through it in any other way. That he did not at once do the necessary thing to get food shows that imitation was not perfect and had to be pieced out with accidental learning, but the very fact that, in spite of his inability to do the proper act, he kept working at the task shows that the law of effect is not sufficient to explain this kind of learning. I do not claim that this is voluntary or inferential imitation. I do not profess to have any very clear idea as to what voluntary and inferential imitation are. What I do claim is that you have here a progressive narrowing of one animal's attention (viewed objectively) in the direction of the behavior of another animal and that this change in the behavior of the second animal can not be accounted for by any supposed change in the animal itself, except such as is induced in it by its observation of the successful behavior of the trained monkey.

If my contentions in this case are granted it may be urged that this is an exceptional case. I doubt that. My own investigation showed other cases which can not be explained on the basis of the supposedly simpler laws. To be sure I do not claim any finality for my results. The investigation marks only one stage on the road of experimental analysis and only points the way for extended investigations in the same direction. The methods of procedure will bear favorable comparison with those of any published experiments in this field, and under these circumstances I shift the burden of proof to the objectors. They must take the experimental devices which produced these results and show that under the same conditions most monkeys will not do as the ones whose behavior is reported.

In view of these contentions, to which I have tried to give some degree of reasonableness, I do not think that the time has come to discard our study of imitative behavior as Bohn[9] seems to think, nor to throw aside the category of imitation as Thorndike would have us do. That a final interpretation of the facts must wait upon the accumulation of a much larger body of material than we now have is certain. On the other hand, there is equal certainty that we must not telescope the facts so far ascertained with theories that do not give full justice to these facts. What our present situation indicates is a reworking of the concept of imitation by discarding the old classification and proceeding to a new classification based on objectively observed facts. That the experimentally determined data are as yet wholly inadequate for a final statement is admitted. Such a reorganization must take account of all the factors that determine attention and of the various levels of accuracy and complexity in the imitative behavior. The first step in the process of reorganization is to convince ourselves that the old classification has reached the limit of its usefulness; the second step is to construct a new classification for a single species of animal, and to follow this with a like service for other species, in every case basing the classification on the facts which have been brought to light by experimental investigation; the third step will be to push the experimental analysis of imitative behavior much farther than we have yet done, and in the end we may be able to speak with positive understanding about the imitative behavior of animals.

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REVIEWS AND ABSTRACTS OF LITERATURE

Motive Force and Motivation Tracks: A Research in Will Psychology. E. Boyd Barrett, S.J. London: Longmans, Green, & Company. 1911. Pp. xiv + 225.

Those who are watching the progress of psychology will easily be reminded, through the present work, of Cardinal Mercier's efforts to interest catholic philosophers in experimental psychology. Broadly speaking, the Cardinal's propaganda in favor of the latest phases of psychological research can not be said to have been very fruitful among his correligionists. Where they have tackled psychological subjects experimentally, in following Cardinal Mercier's advice, they have done so with the intention of showing the exact manner in which the catholic philosopher must look upon experimental psychology rather than for the purpose of solving any particular problem.

[9] Georges Bohn, "La Nouvelle Psychologie Animale," page 185.

It can not be said that Barrett's work is an exception to this rule; this author, a member of the Society of Jesus, swears by the name of Cardinal Mercier. His work, however, gives us an excellent summary of the current theories of will. The subject is thus covered more satisfactorily than in any other recent publication, at least in so far as the literature pertaining to it is concerned, and for this service we may be thankful to the author. His familiarity with modern theories of the will no less than his easy flowing style renders the reading of his book a pleasure even to one untrained technically. Such fundamental problems as determinism, automatism, and the evolution of motivation are treated, on the whole, in a competent way, although the author's contention that the work shows, even indirectly, "the worthlessness of the psychological arguments for determinism" is unfounded. The strictly empirical experimental portion of the work shows nothing of this kind. His criticism of hedonism is particularly sound, provided we limit the use of the term, to a physical sense, in connection with activities of lower order, and, in man, to conscious mental processes.

We turn to the experimental matters reported upon in the book. Experiments were carried on with five subjects, including the author. Eight liquids, specially prepared, were used, to which nonsense names were given. Subjects were asked to taste the eight substances in rotation thrice every morning and thrice every evening, after calling out their respective names as given. The strength of these associations was tested by means of recognition tests, and then followed the choice experiments proper.

These were as follows: The nonsense names, printed on cards, were revealed to the subject, as in the ordinary association tests, by means of Ach's changing machine. Subject was instructed: "React when you know what it is." By arranging the names of the substances in the order of hedonic feelings they evoked, a definite scale of values was obtained, differing, of course, for each subject according to his subjective likes and dislikes.

Next, cards were printed in various combinations, and two of different hedonic value were made to appear at the same time over glasses containing the respective solutions. Subject was requested to choose a solution and drink it. A Hipp chronoscope measured the interval between the appearance of the card and the time of reaction. By means of Ewald's key, a Vernier chronoscope was started by the reaction so that the time elapsing between the reaction and the realization of the choice was also measured.

It will be noted that the processes of motivation and choice, which the author set out to investigate, took place in the interval between the perception of the excitant (in this case the card) and the active realization of the choice. This interval was subjected to close introspective scrutiny. The subjects made note of the motives which actuated them in the choice. The motivation factors, of course, were found to be mostly hedonic; they are divided by the author, arbitrarily, it would seem, into extrinsic and intrinsic. The author also speaks of "motivation tracks"; this adds to the plasticity and clearness of his thought, but when he per-

sists in this direction to the extent of actually mapping out tracks or curves of motive force the reader can not escape the impression that this is one more instance in which a happy simile has been made to bear more than it will support. It would be difficult for the author to convince his readers of the actual occurrence of such tracks and curves as he draws out skilfully, even if he should take the trouble, which he evidently thought unnecessary in the present connection, of disclosing all the proofs he has for their support.

In its final term, it was found that motivation becomes steadied and more and more automatic, that is, independent of conscious attention. This accords with our general empirical notions and is an illustration of the economizing tendency of volition. The opposite of this steadiness of purpose, hesitation, occurred frequently in the course of the author's experiments and is discussed by him in a special chapter, in which he treats of hesitation as a disease of the will and suggests ways of healing.

Whatever might be said of the practicability or therapeutic value of the author's remedies for impairment of the will, it is difficult to see wherein the author's claim that "these suggestions are based on the consideration of the actual results of our experiments" is justified. Suppose we look up his universal remedy or grand arcanum, we find it stated as follows (p. 218): "With regard to hesitation which is, *par excellence,* the malady of the will, inasmuch as it destroys serious motivation and leads to irregularities and inconsistencies, the great means of avoiding it is to acquire the habit of serious, decisive choosing and to avoid repining over past choices." Leaving aside, for the present, the manifestly unwise teaching about "not repining over past choices," it must be said that such advice, far from being the product of experimental research, is the rawest kind of empiricism. Any country gossip is prepared to tell that what ails neighbor Jones, who is run down on account of gastric ulcer, is the absence of good nourishing food and plenty of it. The need of nourishment may be very obvious in the case of neighbor Jones and where the will is not sufficient more will and plenty of it is logical enough, but such prescriptions are far from what is really needed. Other remedies suggested by the author are similarly superficial, even though they be ideally logical enough.

The reader who will turn to this work expecting to find some new light on the subject of will and its motivation will probably be disappointed, but to one who wants the subject reviewed attractively and brought down to date this book will be highly welcome.

Though not quite germane to the subject under consideration, the reviewer thinks it his duty to express disapproval of a peculiar trick which may as well be branded here and now as unworthy of a scientist. The name of a liberal educator, who has recently suffered martyrdom in Spain, is dragged in by the author ostensibly to illustrate a point, but in reality to besmirch his memory. It is unfortunate that even the dead are not safe from such underhanded attacks. The peculiar villainy consists not merely in attaching an opprobrious epithet to an honored man, now dead, in a spirit of partizanship, but in doing so in connection with a work the read-

ers of which are not expected perhaps to know the details of the situation to which reference is made. It is a sophisticated way of carrying prejudice over into quarters where it may not otherwise have a chance to be heard, in the hope that through ignorance of the actual facts it may take root. Nothing is more clear to careful and impartial observers of contemporary events than that Francesco Ferrer did not "hold sway for three days over half a million people, burning their churches, schools, museums, and all they held most precious." This allegation is false in every respect. While such falsehoods are not uncommon, especially in certain interested quarters, one would not expect them to be paraded in front of unsuspecting students of psychology who may be unfamiliar with the details of the situation, and least of all in a work like the present.

The mention of Ferrer, the advocate of peace and apostle of secular education, in the same breadth with the sort of anarchists which the author's fancy depicts, above all the bringing of this matter furtively into this book, is not without a purpose. One's adversary is shown in the wrong and placed *hors de combat,* as it were, at least in so far as public sympathy is concerned (especially if the adversary be dead and unable to defend himself against a false charge) if one succeeds to brand the adversary's memory with some title or epithet repulsive to public opinion. This E. Boyd Barrett, S.J., has endeavored to do parenthetically by throwing a sentence or two into the midst of matter with which the object of his bias has nothing in common. A remark thrown in sideways, where the hearer is not on guard and is unprepared, is more likely to take root than otherwise. It is this that invests the offense of E. Boyd Barrett, S.J., with particular gravity.

Fortunately, no event of historic import in our generation has been the subject of such a thorough and impartial study as the Ferrer case. It is hoped that readers, upon seeing in print Barrett's assault upon the memory of Ferrer will be moved thereby to examine Wm. Archer's "Life, Trial, and Death of Francesco Ferrer" (London: Chapman & Hall, 1911), and thus acquaint themselves with the "Spanish Dreyfus" case, and with the true story of those troublous days in Spain.

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Essentials of Psychology. W. B. Pillsbury. New York: The Macmillan Company. 1911. Pp. ix + 358.

On reading this book one must conclude that Professor Pillsbury has written an excellent elementary text-book of psychology. The mode of presentation is such as to interest the student and the general reader, while the style is forceful and clear. Students and teachers will find the exercises connected with each main topic very usable and well devised for testing and applying the principles brought out in the discussion. The references given at the end of each chapter are, for the most part, to similar treatments from other texts. The topics treated in the book are practically the same as those in most introductory texts except chapters fourteen and fifteen, which deal, respectively, with "Work, Fatigue and Sleep,"

and "Interrelations of Mental Functions," and which, embodying the results of recent experimentation, are a genuine addition to the value of the book. In general, the book profits decidedly by the incorporation of experimental results, giving it a greater scientific value without detracting from its readableness. This is particularly true of the chapters on sensation, perception, memory, and action, as well as those mentioned above.

The book is written confessedly from the functional point of view. Psychology is defined in terms of behavior rather than in terms of consciousness. Consciousness as an object of study is subordinated to behavior, its importance being borrowed from its relation to the latter. However, the results of structural psychology are made much use of and are made rather more important in the treatment than the author's statements in preface and introduction would lead one to expect. The result is largely a coordinating of the functional-behavior form of treatment with the structural-consciousness aspect. It would seem that at the beginning of the study of psychology there is no great gain in making one type subordinate to the other, but that a coordination of treatment is more natural and useful for beginners.

As the discussion is so largely functional, considerable space is given to the nervous system and habit. Two features here may be noticed: first, the explanation of the nervous current in terms of chemical action, and secondly, the use which is made of what we may call the Sherrington theory of the synapse. This latter fits in well with the discussion, but it seems somewhat doubtful if, after all, the use made of the theory is much more than a renaming of certain known features of nerve functioning while the theory itself lacks convincing proof.

The general arrangement of the matter of the book is excellent. Habit, sensation, selection, and retention are first developed and are considered fundamental. The more complex operations are then explained in terms of the simpler. The structural elements are sensations and memories. Though all mental qualities come originally from sensation, the distinction is maintained between sensational and imaginal qualities. The author differs from some writers in being guided in classifying and enumerating sensation qualities by the doctrine of specific energies rather than by discrimination by introspection. In the treatment of feeling, we find affection as a mental element added to the sense and image qualities. The primary mental function is selection. This is fundamental in conscious life and is called attention or will as applied to mental content or to action. Professor Pillsbury's contributions to the solution of the problems of attention are well known, and this book is enriched by the results reached by his thorough investigations. The whole discussion of selection, attention, action, and will, is decidedly good, perhaps forming the best part of the book. On the same high level, however, are the topics sensation, perception, association, and memory, the laws of learning and of retaining and forgetting being especially well worked out from experimental data. Probably the least satisfactory chapters are those dealing with feeling, emotion, and reasoning. The three theories of feeling according to the author ought to be combined if feelings are to be under-

stood in their entirety. Perhaps an attempt to combine them in a single statement would be useful to the student. The chapter on the emotions is rather disappointing from both functional and structural points of view. The chapter on reasoning is rather more logical and rationalistic than one might expect from an experimental psychologist. These are minor defects along with the general excellence of the work. It is a scientific text, pedagogically well arranged and presented. On the whole, as a first book in psychology, it is admirable both in design and in execution.

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The Moral Life. W. R. SORLEY. Cambridge: University Press. 1911. Pp. 147.

Since this handbook on "The Moral Life and Moral Worth" is written for the general reader rather than the philosophical student, it is not unfair to discuss the work from the standpoint of the amateur ethicist. And such a person will be apt to feel vaguely dissatisfied with the rigid distinction made between the historical treatment of the moral life and that from the view-point of validity, or judgment of worth. The author announces at the beginning his intention to treat the subject exclusively from the latter point of view. Then follow chapters devoted to an orthodox presentation of the five official Greek virtues, with a slight concession to modern ways in the shape of an inclusion of Industry, Thrift, and Prudence, and a short discussion of Freedom and Equality. But is this traditional outline, this static and coldly harmonious judgment of moral worth, the most profitable and fruitful way of viewing the subject? People are so incurably dynamic in their philosophy to-day that they can not find in this cross-section of the perfect character, this instantaneous photograph of the perfectly developed moral man, an adequate basis for judgment.

The moral life is a process of the moralization of life and it can be judged only as a process. It can not be stated in terms of "qualities" that we "possess," but rather as a life that emerges and grows out of our reactions to successive crises, which we meet out of our store of instinctive tendencies and traditional ideas, and the peculiar individual trend of our reactions. Out of the jostlings and rubbings and settlings-down of these reactions and habits there slowly emerges the moral life. And in our judgment of this product lies the true moral worth.

The study of a process of the forms of control and influence over human behavior, and of the lines of reaction, is the only kind of "moral philosophy" that will prove very satisfactory to-day. Such a book is that of Professors Dewey and Tufts; in their work, the moral life smacks of reality; its nature is intelligible because its development is intelligible. By the side of it Professor Sorley seems to present a mass of cold abstractions. Some general readers may feel the fine, healthy glow of the traveler in high and rarified altitudes of philosophic thought, but the radically minded will be apt to feel that they have asked for bread and have been given a stone.

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JOURNALS AND NEW BOOKS

REVUE PHILOSOPHIQUE. December, 1911. *La contagion des manies et des mélancolies* (pp. 561–583): G. DUMAS. – For manias and true melancholias the hypothesis of contagion is no more acceptable than for mental confusions. *Positivisme, criticisme, et pragmatisme* (pp. 584–605): L. DUGAS. – A careful analysis of the pragmatic elements in these three points of view. *L'introspection* (pp. 606–626): L. DUGAS. – Vindication of introspection as the fundamental, original, and peculiar method of psychology. *Analyses et comptes rendus.* E. Tassy, *Le travail d'idéation:* FR. PAULHAN. *Philosophie und Religion in Darstellungen* (par divers auteurs): J. BENRUBI. L. Cuénot, *La genèse des espèces animales:* F. LE DANTEC. H. M. Bernard, *Some Neglected Factors in Evolution:* G. SELIBER. E. Underhill, *Mysticism:* L. ARRÉAT. Bohn, *La nouvelle psychologie animale:* J.–M. LAHY. Dr. G. Stroehlin, *Les syncinésies:* G.–L. DUPRAT. S. Boirson, *La coéducation:* G.–L. DUPRAT. J. Rogues de Fursac, *L'avarice:* L. DUGAS. *Revue des périodiques étrangers.*

REVISTA DI FILOSOFIA NEO-SCOLASTICA. December, 1911. *Il successo di Enrico Bergson* (pp. 614–630). The success of Bergson's philosophy depends upon the abuse of intellectualism during the preceding generation, but sooner or later intellectualism will get the upper hand again and Bergson's reputation as a philosopher will be permanently eclipsed. *Essenza ed esistenza* (pp. 631–657): G. MATTIUSSI.—In the divine nature, essence and existence are identical; in finite beings, on the other hand, there is a real distinction between the two concepts. *Lo studio sperimentale del pensiero e della volontà* (pp. 658–669): A. GEMELLI. – An account of some recent experimental studies (Ach, Michotte-Prüm) on the voluntary act, its antecedents and its motives. *Note e discussioni. Cronaca scientifica. Analisi d'opere.* A. Gemelli, *Sui rapporti tra scienza e filosofia:* D. D'ALBA. F. Paulsen, *Introduzione alla filosofia:* P. ROTTA. J. Geyser, *Grundlagen der Logik und Erkenntnislehre:* E. CHIOCCHETTI. L. Profumo, S.J., *Corso di filosofia elementare,* G. M. PETAZZI, S.J. A. Bonucci, *Verità e Realtà:* P. ROTTA. A. Tari, *Saggi di estetica e metafisica:* R. FUSARI. A. Cappellazzi, *Le Categorie di Aristotele e la filosofia classica:* P. G. P. E. Krebs, *Meister Dietrich. Sein Leben, seine Werke, seine Wissenschaft:* B. NARDI. J. Zeitter, *L'idée de l'état dans Saint Thomas d'Aquin:* A. MASNOVO. E. Caird, *Hegel:* E. CHIOCCHETTI. F. von Hügel, *Religione ed illusione:* G. TREDICI. *Note bibliografiche. Somnario ideologico.*

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NOTES AND NEWS

THE fifth annual Congress of the *Gesellschaft für experimentelle Psychologie* was held in Berlin, April 16–20, under the presidency of Professor G. E. Müller. There was a large and distinguished attendance of German psychologists, and papers were read by Professors Müller, Külpe, Sommer, Goldscheider, Vogt, Lippmann and more than thirty others. Representatives from almost all of the countries of Europe were present, England's delegation including Professors McDougall, Myers, and Spearman. From America, Professors W. F. Dearborn, L. J. Martin, A. Meyer, H. Münsterberg, and R. S. Woodworth, were in attendance. Extensive exhibitions of psychological apparatus and of the methods and results of applied psychology were held in connection with the congress. The meeting in 1913 will be held in Göttingen.

PROFESSOR WILLIAM JAMES'S letters are being collected for biographical purposes, and any one who has any of his letters can render assistance that

will be highly appreciated by addressing Henry James, Jr., 95 Irving St., Cambridge, Mass. Casual or brief letters may have an interest or importance not apparent to the person preserving them; and news of the whereabouts of any of the late William James's letters will be gratefully received.

DR. EUGEN KUEHNEMANN, professor of philosophy at the University of Breslau, Germany, and recently German exchange professor at Harvard University, has been appointed as the first German university professor to occupy the Carl Schurz memorial professorship established last year in the University of Wisconsin by German-American citizens of Wisconsin and friends of the university.

THE Annual General Meeting of the Mind Association will be held in Trinity College, Cambridge, on Saturday, June 1, 1912. On the afternoon of that day the London Aristotelian Society will hold a symposium, to which members of the Mind Association are invited, on "Purpose and Mechanism." Papers will be read by Professors W. R. Sorley, A. D. Lindsay, B. Bosanquet, and G. F. Stout.

PROFESSOR FREDERICK E. BOLTON, professor of education and director of the school of education in the State University of Iowa, has accepted a call to become head of the department of education in the State University of Washington at Seattle, and will begin his work at that place in September.

M. HENRI POINCARÉ, professor of mathematical astronomy in the University of Paris, lectured at the University of London during the early part of this month, upon *"La Logique de l'Infini," "Le Temps et l'Espace," "Les Invariants arithmétiques,"* and *"La Théorie du Rayonnement."*

PROFESSOR GEORGE GRANT MCCURDY will be the delegate from Yale University to the International Congress of Anthropology and Prehistoric Archeology to be held in Geneva, Switzerland, during the first week in September, 1912.

AMONG the recent lectures at the University of Illinois were three upon "Heredity" by Professor W. E. Castle, of Harvard University, and one upon "Morals and Moral Ideals of the Japanese," by Professor Inaze Nitobe.

CAMBRIDGE UNIVERSITY has recently received a gift of $100,000 with which is to be founded a professorship for the study of the laws of descent, to be called the Balfour Professorship of Genetics.

PROFESSOR HENRY B. FINE has resigned the deanship of the faculty of Princeton University, but continues as dean of the department of science and as Dod professor of mathematics.

THE Philadelphia Branch of the American Philosophical Association held an unusually interesting meeting on April 18 to 20. President R. W. Keen gave the opening address.

THE REV. GEORGE WILLIAM KNOX, professor of philosophy and the history of religion in the Union Theological Seminary, died on April 25, at the age of fifty-nine years.